Multi-Loader

User manual

VW3 A8 121

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www.schneider-electric.com

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NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure

The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists, which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation, which, if not avoided, **will result** in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation, which, if not avoided, **can result** in death, serious injury or equipment damage.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation, which, if not avoided, **can result** in injury or equipment damage.

NOTICE

NOTICE indicates a potentially hazardous situation, which, if not avoided, **can result** in equipment damage.

PLEASE NOTE

The word "drive" as used in this manual refers to the controller portion of the adjustable speed drive as defined by NEC.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this product.

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Before you begin

Read and understand these instructions before performing any procedure with this product.

⚠ DANGER

UNINTENDED EQUIPMENT OPERATION

- Read and understand this manual before installing or operating the Multi-loader.
- Any changes made to a device using the Multi-loader must be performed by qualified personnel.
- Read and understand the device manuals before you load or duplicate the Configuration from one device to another device.
- Ensure that you select the Configuration suitable for your application
- Before you load a new product firmware, read and understand the procedure "transferring the device update file" described on page 30.

Failure to follow these instructions will result in death or serious injury.

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only appropriately trained persons who are familiar with and understand the contents of this manual and all other pertinent product documentation and who have received safety training to recognize and avoid hazards involved are authorized to work on and with this product system. Installation, adjustment, repair and maintenance must be performed by qualified personnel.
- The system integrator is responsible for compliance with all local and national electrical code requirements as well as all other applicable regulations with respect to grounding of all equipment.
- Many components of the product, including the printed circuit boards, operate with mains voltage. Do not touch. Use only electrically insulated tools.
- Do not touch unshielded components or terminals with voltage present.
- Motors can generate voltage when the shaft is rotated. Prior to performing any type of work on the product system, block the motor shaft to prevent rotation.
- AC voltage can couple voltage to unused conductors in the motor cable. Insulate both ends of unused conductors of the motor cable.
- Do not short across the DC bus terminals or the DC bus capacitors or the braking resistor terminals.
- Before performing work on the product system:
  - Disconnect all power, including external control power that may be present.
  - Place a "Do Not Turn On" label on all power switches.
  - Lock all power switches in the open position.
  - Wait 15 minutes to allow the DC bus capacitors to discharge. The DC bus LED is not an indicator of the absence of DC bus voltage that can exceed 800 Vdc.
    Measure the voltage on the DC bus between the DC bus terminals using a properly rated voltmeter to verify that the voltage is <42 Vdc.
  - If the DC bus capacitors do not discharge properly, contact your local Schneider Electric representative.
- Install and close all covers before applying voltage.

Failure to follow these instructions will result in death or serious injury.

Documentation structure

The following Multi-Loader documents are also available on www.schneider-electric.com.

Simplified manual

This manual is a simplified version of the user manual. It is delivered with the Multi-Loader.

User manual

This manual describes how to connect, configure and update the Multi-Loader.

1. Receive and inspect the Multi-Loader

Check that the reference printed on the label is the same as that on the purchase order.

Remove the Multi-Loader from its packaging and check that it has not been damaged in transit.

2. Connect the Multi-Loader (see page 13)

- ☐ To a PC
- ☐ To a device

3. Duplicate device configurations (see page 16 and 17)

- ☐ Load a configuration onto the Multi-Loader
- ☐ Transfer a configuration to a device
- ☐ Transfer a configuration to several devices (Quick Store)

4. Multi-Loader menus (see page 18)

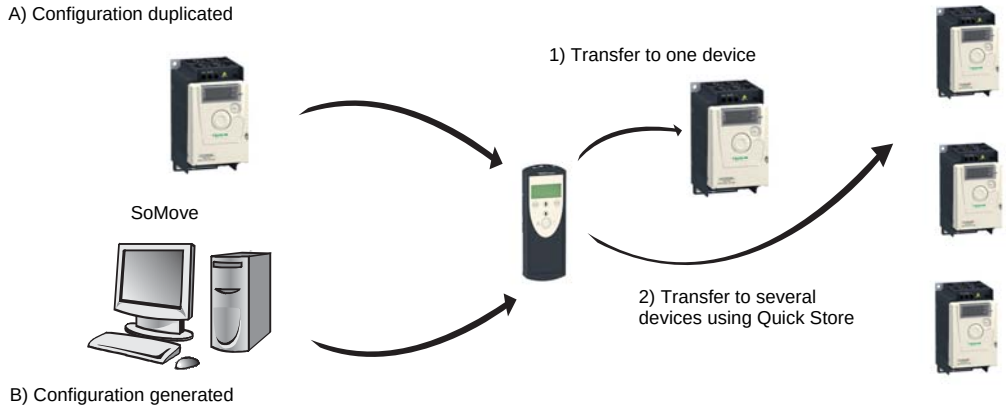
Introduction

The Multi-Loader is a standalone tool for transferring configuration files to devices with their power on or off.

- The Multi-Loader is used to set device parameters by loading a configuration file onto the device(s). (Devices must have the same reference. A consistency check is performed before the data transfer). On some devices the parameters can be set with them still in their box or before they are powered up.
  - This portable tool has been designed to load up to fifty devices a day and has a battery life of six days. However, this depends on the transfer time, the size of the configuration files and other parameters associated with the settings for the Multi-Loader and the connected devices.
  - It can configure ten drives in less than five minutes.
  - The Multi-Loader can provide the power supply for certain devices if they are turned off during the transfer.

- The Multi-Loader is also a firmware update tool.
  - The "**Password FW**" mode can be used to help protect against incorrect operation by means of a password. See the "**Password FW**" menu on page 27.

Duplicating or generating configuration files


A) Configuration duplicated
1) Transfer to one device
SoMove
2) Transfer to several devices using Quick Store
B) Configuration generated

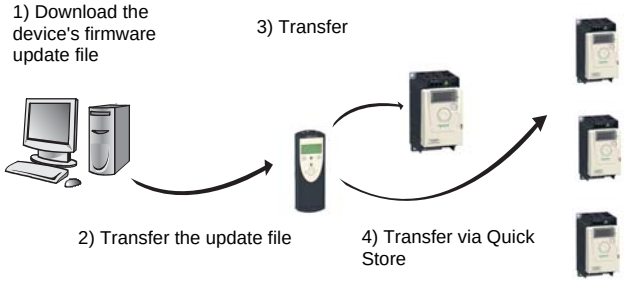
A) The device's configuration file is copied to the Multi-Loader's SD card. See the procedure on page 16.

B) The configuration file is generated by SoMove then transferred to the Multi-Loader's SD card. See the procedure on page 16.

1) The user selects and then transfers the configuration file from the Multi-Loader to the device. See the procedure on page 17.(**Step 1 to 3**)

2) Once the initial transfer is complete, the user can use Quick Store mode, which allows the Multi-Loader to load the same update file on several devices in succession. (See page 17 **Step 1 to 4**)

Updating device firmware



1) The user downloads the device's specific update file.

2) The user transfers the device's firmware update file from the PC to the Multi-Loader's SD card. See "Connection to a PC" on page 13.

3) The user selects and then transfers the product's firmware update file from the Multi-Loader to the drive. See the procedure on page 30.

4) Once the initial transfer is completed, the user can use Quick Store mode, which allows the Multi-Loader to load the same updated file on several devices.

All representations of the ATV12 drive throughout this document are given by way of example only to symbolize a device. Please refer to the device compatibility tables on pages 15 and 29.

All bold blue text in the manual (e.g. "**Main menu / Action**") corresponds to the messages displayed on the Multi-Loader screen.

Receipt of the Multi-Loader

Product reference:

Check that the product reference printed on the label is the same as that on the delivery note. This should also correspond with the number on the purchase order.

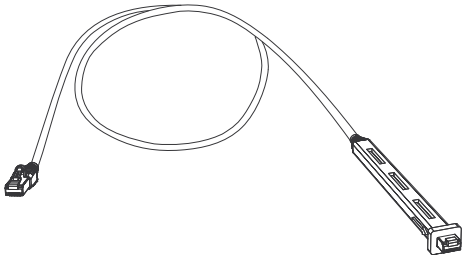
Contents of the Multi-Loader box (VW3A8121)

Check that the Multi-Loader box contains the following:

- 1 x Multi-Loader
- 4 x LR6 (AA) batteries
- 1 x SD card
- 1 x standard USB type A to Mini-B cable
- 1 x RJ45 (RJ45/RJ45) cable
- 1 x RJ45 female/female adapter (VW3A1105)
- 1 x carry case
- 1 x simplified manual (English and French)
- 1 x impact resistant cover

Available as an option

- Multi-Loader Cordset VW3A8126. (not compatible for ATV32 and LXM32)



Receipt of the Multi-Loader

Presentation

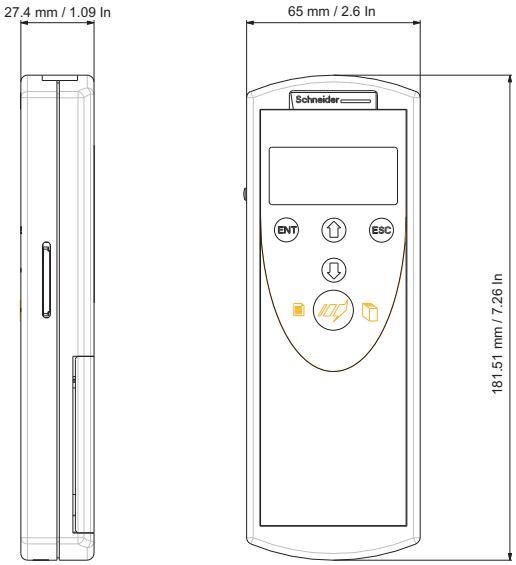


Figure 1

Weight

250 grams (including batteries)

Data storage

One SD card is supplied with the Multi-Loader. Any standard SD card is compatible with the tool (not SDHC card except the model delivered with the Multi-Loader).

Language

All menus are in English, French, German, Italian, Spanish, Chinese and Japanese.

Power supplies

Two options are available for powering the Multi-Loader:

1) With internal power supply:
- 4 x LR6 (AA) alkaline batteries (batteries included)
- NiMh rechargeable batteries (batteries and charger not included)

2) With external power supply :
- USB type A to Mini-B cable direct on the PC power supply

Battery life

Depending on the type of batteries used, the Multi-Loader can transfer up to 300 configuration files.

Power save feature

To prolong battery life, a standby function is activated within a programmable time delay; the Multi-Loader is reactivated by pressing the ON/OFF button. (See the display parameters menu on page 28.)
Connection to a powered-up PC or device can also help conserve battery power, as the power supply from the connected device takes over from the batteries.

Description of the HMI

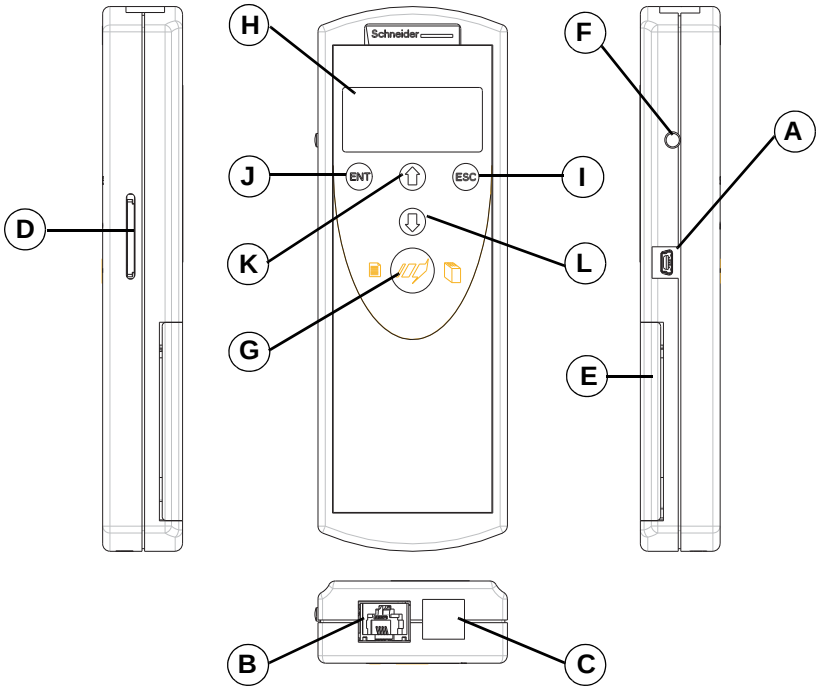


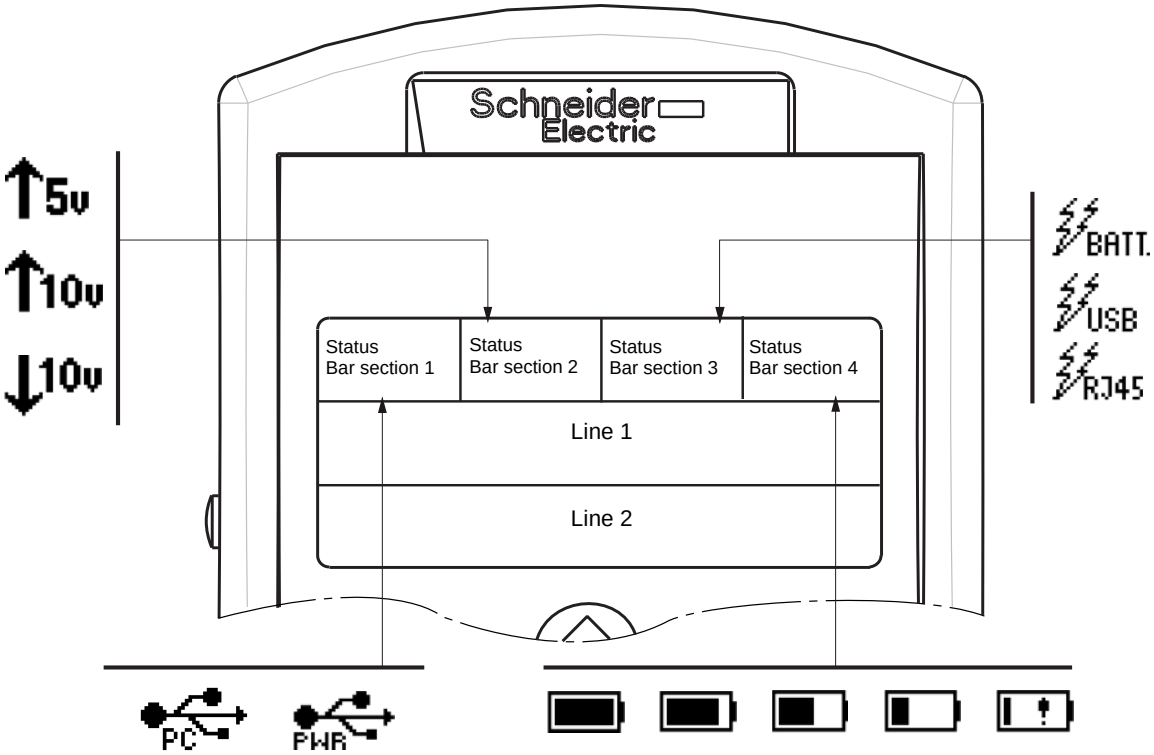
Figure 2

Letter	Description	Comments
A	Mini-B USB connector	The connection between the Multi-Loader (USB Mini-B type) and the PC (USB type A) is via a 1 m (3.28 feet) USB type A to Mini-B cable.
B	RJ 45 connector	The connection between the Multi-Loader and the device is via a RJ45 cable to load and transfer configuration files or updated application
C	RJ11 connector with label cover	This connector is reserved for Schneider Electric product support.
D	SD card slot	The SD card receives and stores the files. One SD card is supplied with the Multi-Loader.
E	Battery compartment	The Multi-Loader can take normal batteries or rechargeable batteries.
F	ON/OFF button	Press for 2 seconds to turn the tool on or off.
G	Quick Store key	Press this key to transfer data from the Multi-Loader to the device after an initial transfer.
H	Screen	The screen comprises 2 lines of 16 characters. (see page 12)
I	ESC key	Returns to the previous screen.
J	ENT key	Confirms the parameter selection or cancels messages.
K	Up arrow key	For menu navigation.
L	Down arrow key	For menu navigation.

Receipt of the Multi-Loader

Description of the status Bar.

The drawings below show names and functions of main parts display.



Status Bar section 1

- Multi-Loader is connected to PC
- Multi-Loader is connected to USB Power supply

Status Bar section 2

- Multi-Loader is sending 5VDC to device
- Multi-Loader is sending 10VDC to device
- Multi-Loader is getting 10V input from device

Status Bar section 3

- Multi-Loader is running on Battery power
- Multi-Loader is running on USB power
- Multi-Loader is running on RJ45 power

Status Bar section 4

- Battery full
- Battery 75%
- Battery 50%
- Battery 25%
- Battery low (less then 20%)

Connecting the Multi-Loader

This section describes the various ways of connecting the Multi-Loader.

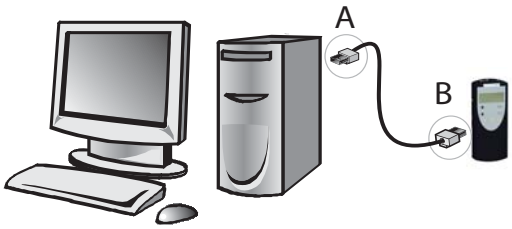
Connection to a PC

There are two ways of storing files on the SD card:

- Insert the SD card in the Multi-Loader and connect the Multi-Loader to the PC with the standard USB type A to Mini-B cable (see **Figure 3** below) . The Multi-Loader is power supply by the PC.

Or

- Insert the SD card in the SD card reader on the PC (see **Figure 4** below)



A: USB type A connector B: USB Mini-B type connector

Figure 3

SD card reader

Figure 4

For both these methods, the SD card is recognized as an external storage device; no driver is required. The SD card operates in Windows Explorer using the same copy/paste actions as any standard external storage medium.

Note:

- The PC must be on and operational before connecting the Multi-Loader to avoid an incorrect start up of the PC.
- The SD card must not be removed when the Multi-Loader is on and a transfer is in progress. Otherwise, data on the SD card may be lost.
- The file name can have 32 characters and the special characters are forbidden.
- The following priority rules come into play when the Multi-Loader is connected to a PC:
  - If no transfer is in progress between the Multi-Loader and the drive, the connection to the drive is ignored and the Multi-Loader is detected by the PC.
  - If a transfer is in progress between the Multi-Loader and the drive, the user has to wait until the transfer is complete. The Multi-Loader should be reconnect to the pc for can be detected.
  - If the Multi-Loader is connected to the PC without a SD card, it is necessary to disconnect the Multi-Loader before inserting SD card to be recognized by the PC as an external storage device.
  - If the Multi-Loader is connected to the PC without a SD card, it is power supply by the PC. Insert the SD card to be recognized by the Multi-Loader, you can transfer configuration file.

Source of configuration files

There are two ways of managing configuration files:

- If a device's configuration is to be duplicated, it is copied to another device via the Multi-Loader. See "Loading a configuration from device" on page 16 and "Configuration transfers" on page 17
- If the configuration file is generated by SoMove software, it must then be transferred to the Multi-Loader's SD card. See "Downloads" on page 32 and "Connection to a PC" above.

Connecting the Multi-Loader

Connection to a drive

There are three ways of transferring configuration files.

The drive is in its packaging

When the drive is off, the Multi-Loader is powered

Note: When the drive is in its box, the Multi-Loader Cordset option can be used for quicker and easier in-box connection (no locking tab on the connector), thus speeding up the transfer and keeping the packaging intact.

The drive is mounted, wired, and powered-up
or
the drive is power on

When the drive is on, the Multi-Loader is powered by the drive via the RJ45 cable.

⚠⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH - EXPOSURE TO ENERGIZED PARTS

- Adhere to NFPA 70E guidelines when using the Multi-Loader.
- The Multi-Loader is to be used only by qualified personnel as defined in NFPA 70E
- Read and understand the manuals for the applicative drive before accessing the communication port of the drive.
- Ensure that the RJ45 cable is not damaged

Failure to follow these instructions will result in death or serious injury.

Schneider Electric recommends that all power from the drive and enclosures housing the drive is disconnected before performing this procedure. If you choose not to follow this recommendation, you must adhere to NFPA 70E guidelines.

1. Remove all power from the drive and all enclosures housing the drive and wait 15 minutes to allow the DC bus of the drive to discharge.

2. Insert the Multi-Loader's communication cable into the drive's RJ45 communication port. Refer to the drive's installation manual for more information about how to perform this task.

3. Install and close all covers and doors before applying power to the drive. The drive must be powered on before performing an upload or download.

4. Perform the desired transfer.

5. Upon completing the transfer, remove all power from the drive and the enclosures housing the drive and wait 15 minutes to allow the DC bus of the drive to discharge.

6. Remove the Multi-Loader communication cable from the drive.

7. Install and close all covers and doors before reapplying power to the drive.

8. Confirm that the correct program is in the drive.

Connecting the Multi-Loader

Connection to the graphic terminal (VW3A1101)

The Multi-Loader can be connected to the graphic terminal via its RJ45 female/female adapter (VW3A1105). This adapter is needed for updating the graphic terminal.

Configuration transfers

Compatibility

The table below shows the devices that are compatible with the Multi-Loader. It shows which type of file can be transferred depending on the state of the device.

The Multi-Loader can be used to:

- Transfer configuration **("*.cfg")** files via the RJ45 cable supplied with the Multi-Loader.

Device	Power on	Power off
ATV303	●	●
ATV12	●	●
ATV212	●	
ATV32	●	●
ATV312	●	
LXM 32	●	
LXM 32S	●	
ATV31	●	
ATV71	●	
ATV61	●	

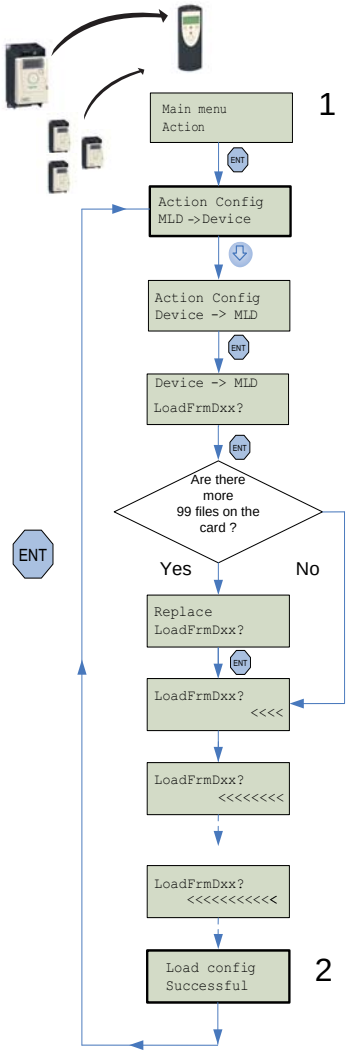
● Device compatible with the Multi-Loader tool

Note: When transferring files, devices must have the same reference. Any incompatibility will prompt an message "**Wrong reference Fault**" and the transfer operation will not be done. (See the table of detected fault on page 25.)

Configuration transfers

Loading a configuration from a device and more.

This procedure allows the user to retrieve a configuration file ("**file.cfg**") from a device and load it onto the Multi-Loader's SD card.



STEP	Actions
1	• Turn the Multi-Loader on using the ON/OFF button "**F**" (see page 11). • Connect the Multi-Loader to the device using the RJ45 cable (see page 14). • Press "ENT" when the screen displays **Main menu / Action**. • Select the **Action Config / Device -> MLD** menu using the arrow keys and press "ENT". • **Device -> MLD / LoadFromDevice** appears on the screen. Press ENT until the transfer starts.
2	• **Load Config Successful**: The configuration has been loaded successfully onto the Multi-Loader; disconnect the RJ45 cable from the device. The device configuration file ("**file.cfg**") is now loaded onto the Multi-Loader's SD card. • Pressing "ENT" returns the user to the "**Action Config**" menu. • For another loading configuration into the Multi-Loader, repeat the step 1 and step 2.

☞ **Note 1**: The file will be stored in a folder (folder name is the first 5 letters of the device ID) kept in a directory called 'LoadFrmDev' located at *root*.

☞ **Note 2**: Loading a configuration from an ATV61/71 device with option board could generate, a short time, the display of [Incorrect config.] (CFF) fault on the device during the operation.

Configuration transfers

Transferring the configuration to a device and more. (use Quick Store)

⚠ DANGER

UNINTENDED EQUIPMENT OPERATION

- Read and understand this manual before installing or operating the Multi-Loader.
- Any changes made to a device using the Multi-Loader must be performed by qualified personnel.
- Read and understand the device manuals before you load or duplicate the Configuration from one device to another device.
- Ensure that you select the Configuration suitable for your application

Failure to follow these instructions will result in death or serious injury.

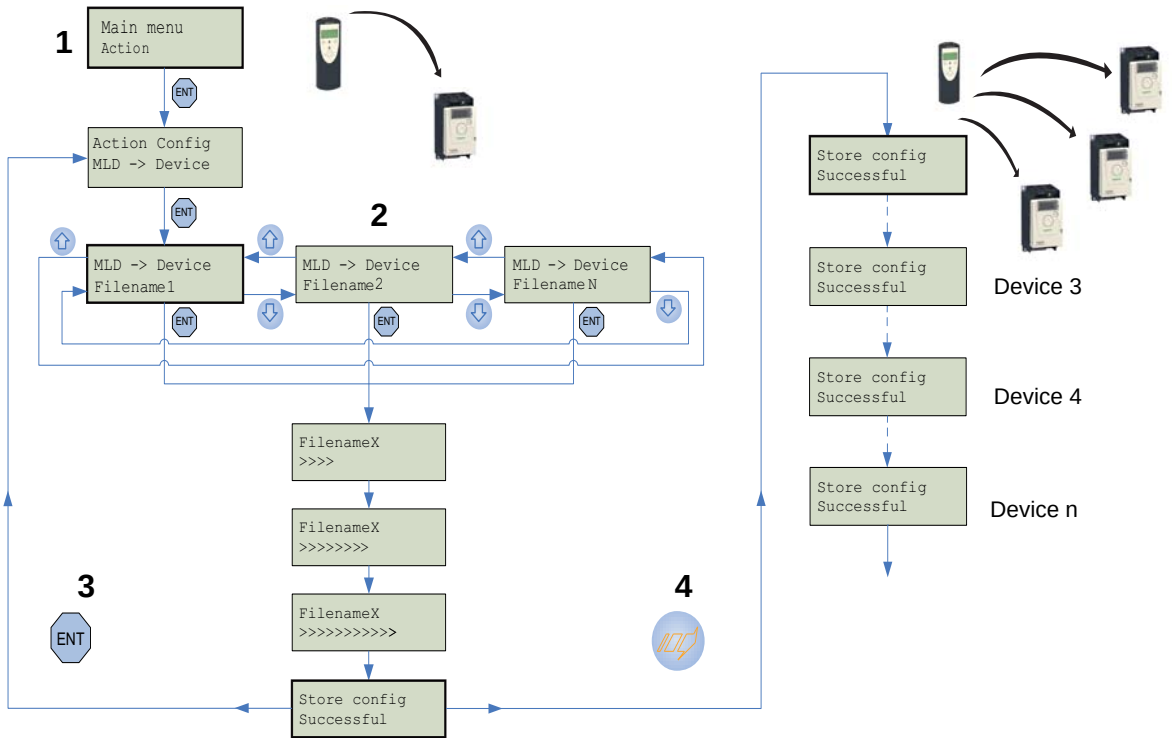
This procedure allows the user to select the configuration file to be transferred to the device and use the Quick Store function (see page 22) to duplicate configurations.

The user must already have:

- Loaded the device configuration file (***.cfg**) onto the Multi-Loader (see page 16)

Or

- Generated the configuration file using SoMove and loaded this file onto the Multi-Loader (filename1, filename 2, etc.)



STEP	Transfer
1	• Turn the Multi-Loader on using the ON/OFF button "F" (see page 11). • Connect the Multi-Loader to the device using the RJ45 cable (see page 14). • Press "ENT" when the screen displays **Main menu / Action**. • Press "ENT" when the screen displays **Action Config / MLD -> Device**.
2	• Select the file to be transferred using the arrow keys and press "ENT" to start the transfer. If no device is connected, a message (**No device connected**) appears on the screen (see page 25).
3	• The configuration has been transferred successfully from the Multi-Loader; disconnect the RJ45 cable from the device. • Pressing "ENT" returns the user to the "**Action Config / MLD -> Device**" menu or see STEP 4 for the Quick store.
4	• Connect the Multi-Loader to the next device, then press the Quick Store key • **Store Config Successful**: The configuration has been loaded successfully onto the second device; remove the RJ45 cable from the device. This action can be carried out as many times as necessary

Note : Storing a configuration to an ATV61/71 device with option board could generate, a short time, the display of [Incorrect config.] (CFF) fault on the device during the operation.

Multi-Loader menus

Multi-Loader main menu

On power-up, the **Multi-Loader / Version** "x.x" menu is displayed on the screen.

The diagram below shows the various menus that can be accessed from the Multi-Loader main menu.

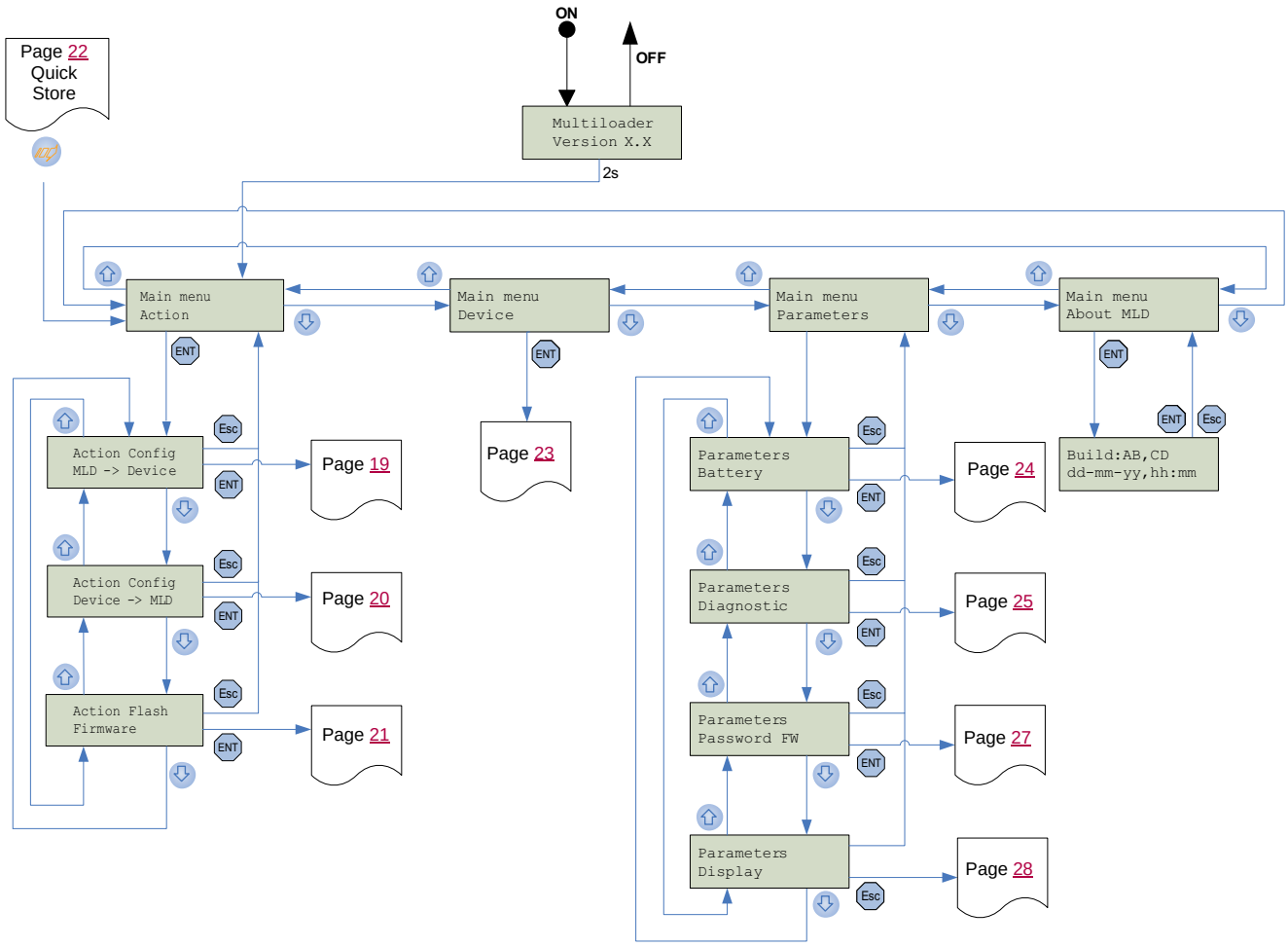
Main menu / Action accesses the following functions:
- Load from Multi-Loader to device
- Load from device to Multi-Loader
- update software of device

Main menu / Device accesses the following information:
- Device type
- Device version

Main menu / Parameters accesses:
- Battery parameters
- Diagnostic parameters
- Password parameters
- Display parameters

Main menu / About MLD accesses:
- Multi-Loader version information

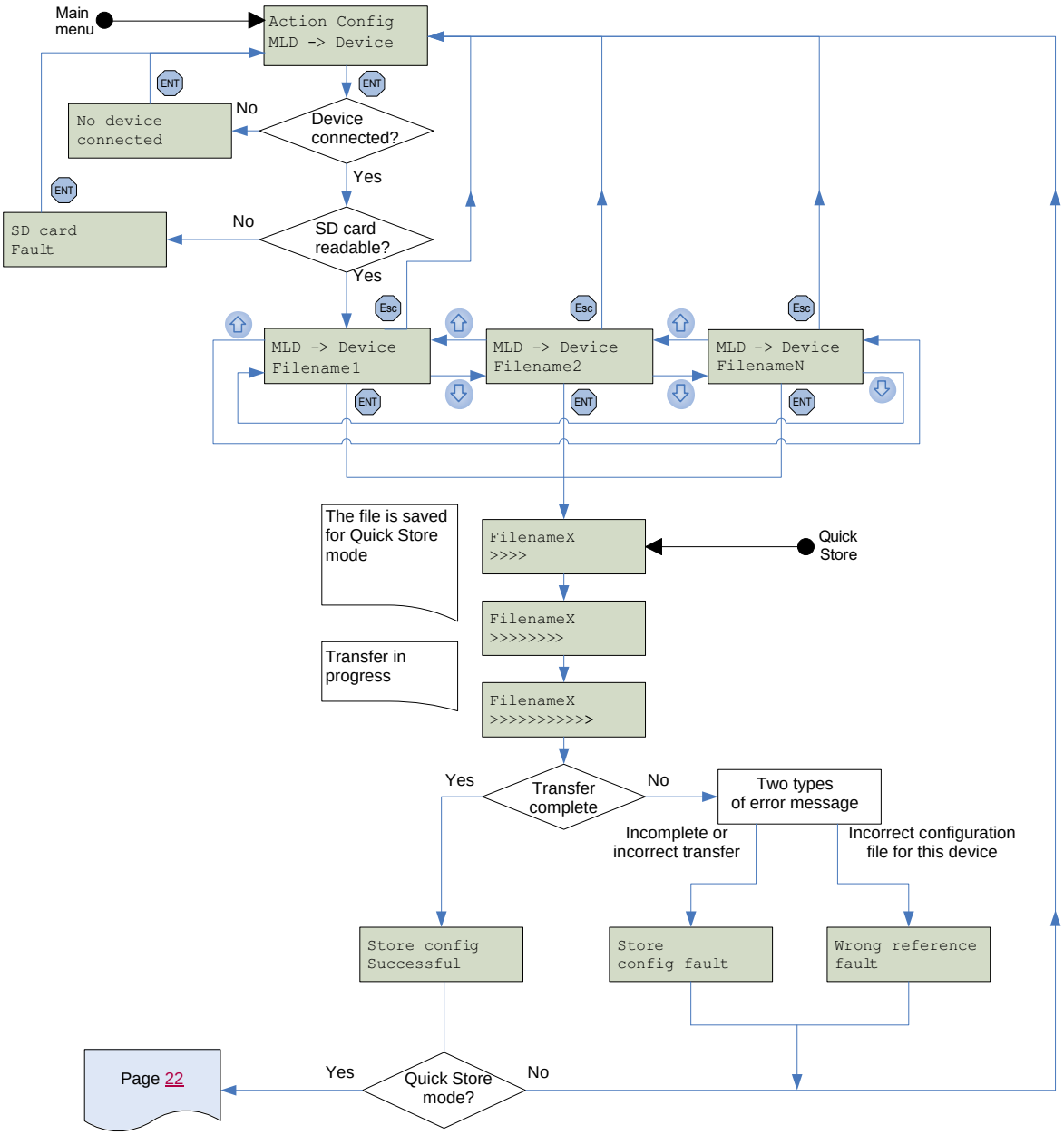
The Quick Store key "**G**" (see page 11) allows the user to transfer the most recent configuration file or update the device (see page 22).



Note : Quick Store mode is disabled when the Multi-Loader is loading files.

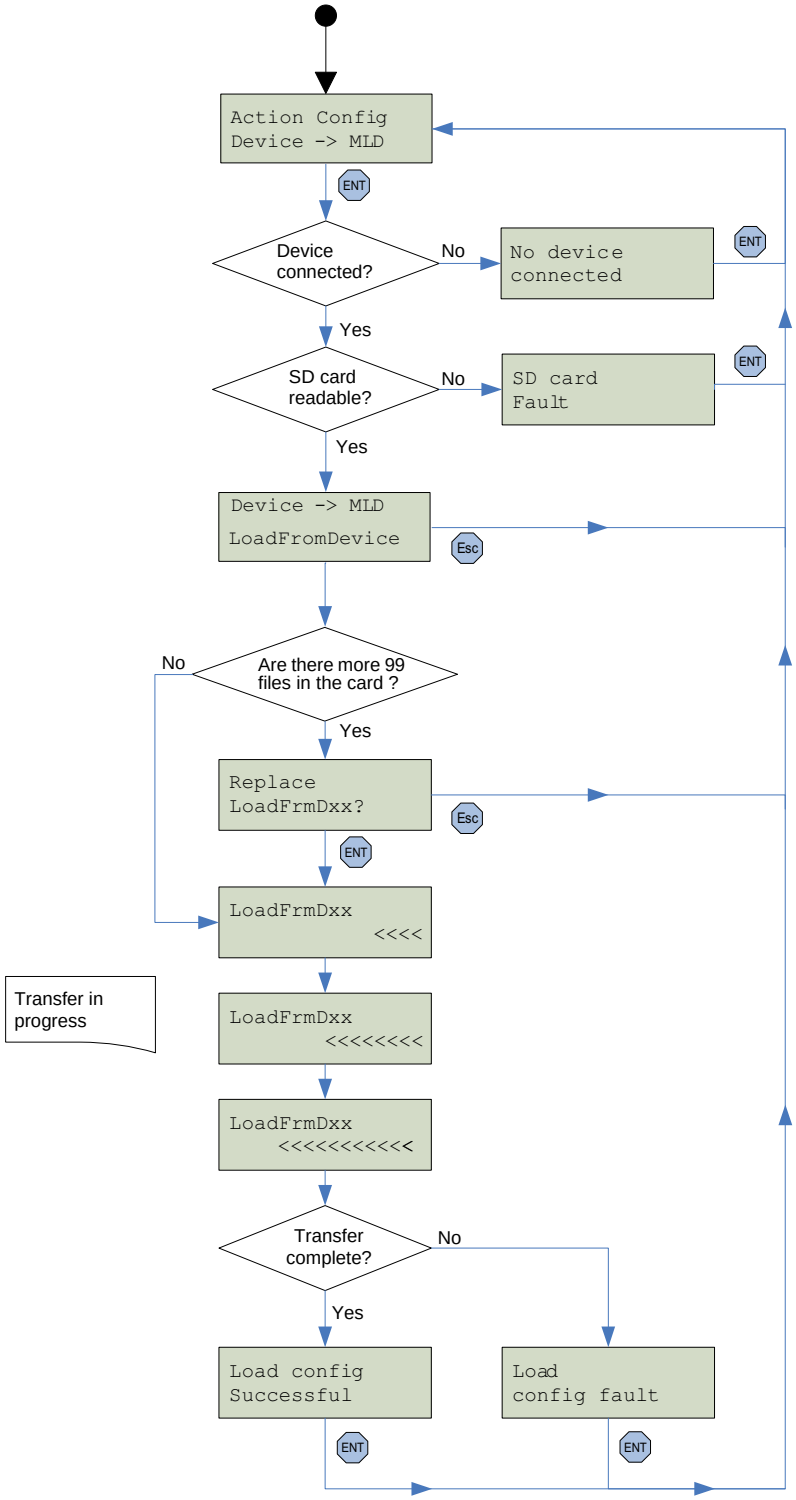
Action: Store configuration from Multi-Loader to device

The diagram below shows the **Action Config / MLD -> Device** menu accessible from **Main menu / Action**.
Action Config / MLD -> Device: This menu accesses the transfer function for loading configurations from the Multi-Loader to the device.



Action: Load configuration from device to Multi-Loader

The diagram below shows the **Action Config / Device -> MLD** menu accessible from **Main menu / Action**.
Action Config / Device -> MLD: This menu accesses the transfer function for loading configurations from the device to the Multi-Loader.



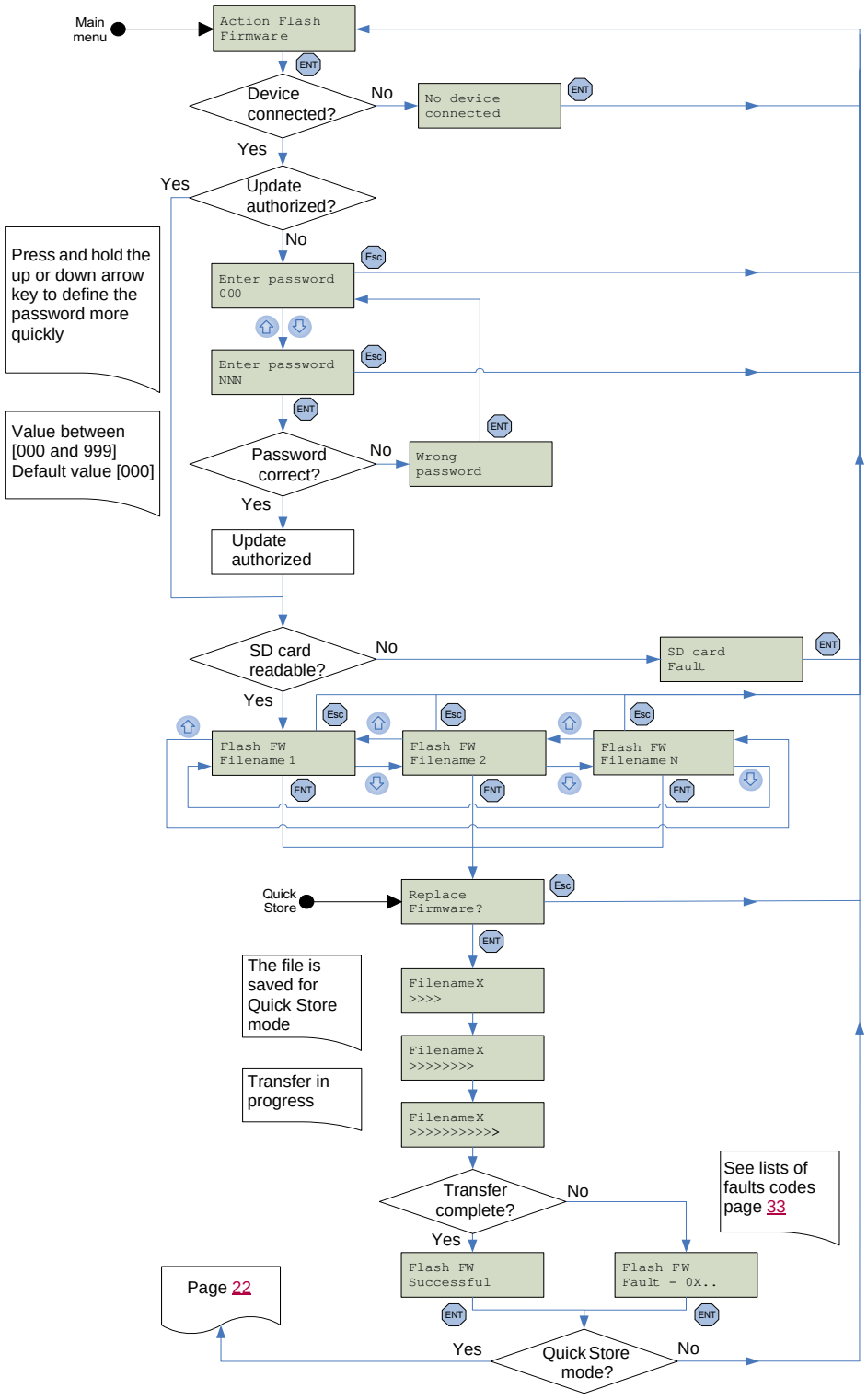
Note1: The file will be stored in a folder (folder name is the first 5 letters of the device ID) kept in a directory called 'LoadFrmDev' located at *root*.

Note 2: The maximun number of configurations for each range are 99.

Action: Update device using Multi-Loader

The diagram below shows the **Action Flash / Firmware** menu accessible from **Main menu / Action**.
Action Flash / Firmware: This menu accesses the transfer function for loading the software update file onto the device.
It is possible to protect the firmware update transfer. See the **Parameters / Password FW** menu on page 27.

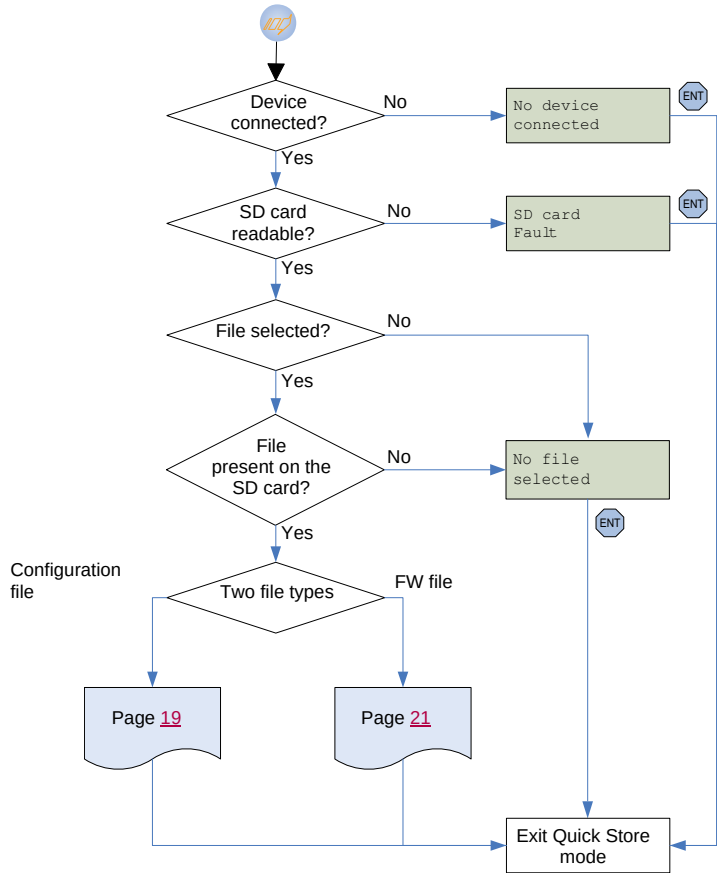
An RJ45 cable is required for updating the device firmware (see the compatibility table on page 29). If a device is updated without being turned on, the Multi-Loader provides the power supply.



Quick Store mode

This mode is used to transfer the latest configuration file (page 17) or latest device firmware updated file (page 30). (1)

The diagram below shows the Quick Store mode, which can be accessed after using either of the **Action Config / MLD -> Device** or **Action Flash / Firmware** menus.

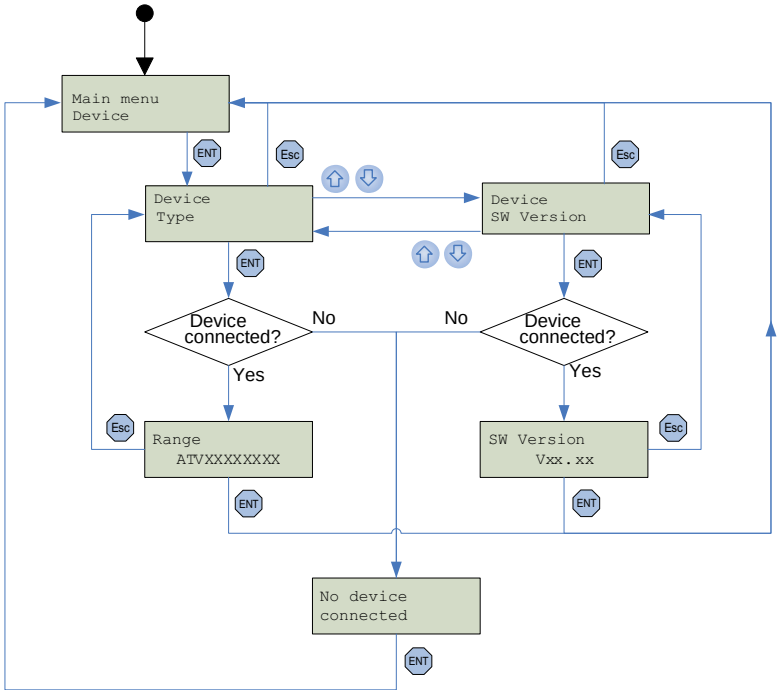


Note 1: If the Multi-Loader is already loading a file, the Quick Store key is inactive.
Note 2: Quick Store mode can only be used after an initial transfer to a device has been completed.

(1) Files can only be transferred between devices with the same reference.

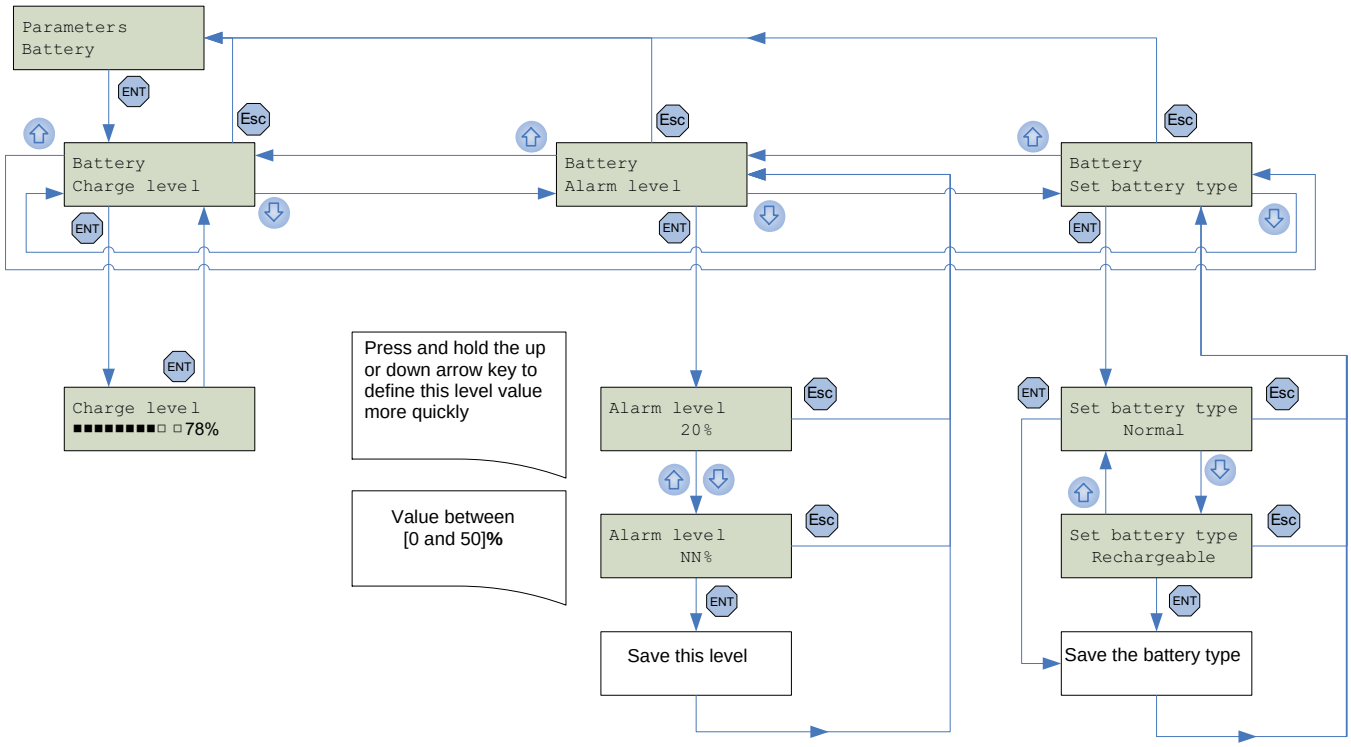
Supervision

The diagram below shows the device main menu, accessible from **Main menu / Device**. This supervisory menu is used to check the reference and version of the device connected to the Multi-Loader.
Device Type: This menu accesses the reference of the connected device.
Device SW version: This menu accesses the software version of the connected device.



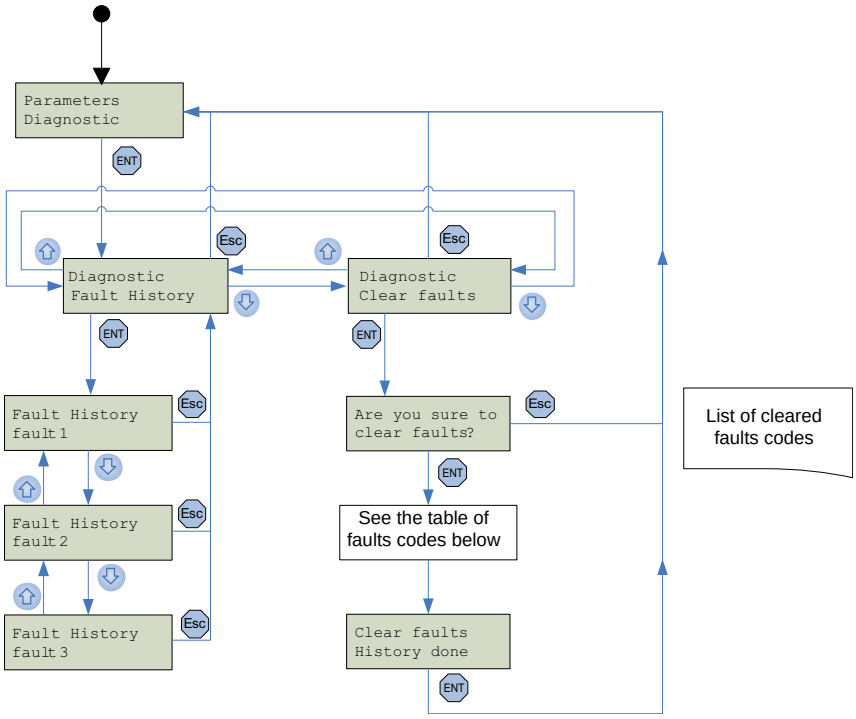
Parameter settings: Batteries

The diagram below shows the **Parameters / Battery** menu accessible from **Main menu / Parameters**.
Battery / Charge level: This menu displays the Multi-Loader charge level.
Battery / Alarm level: This menu is used to set message activation at a particular charge level. It warns the user about the battery charge status according to the value set (see message fault detected on page 25).
Battery / Set battery type: This menu is used to select the type of battery used by the Multi-Loader (normal batteries or rechargeable batteries). Users must ensure that the correct battery type is selected so that the Multi-Loader can accurately display the charge level. This also affects message activation.



Parameter settings: Diagnostics

The diagram below shows the **Parameters / Diagnostic** menu accessible from **Main menu / Parameters**.
Diagnostic / Fault History: This menu accesses the detected fault history.
Diagnostic / Clear Faults: This menu is used to clear the detected fault history



⚠ DANGER

UNINTENDED EQUIPMENT OPERATION DUE TO TRANSFER INTERRUPTION
If an interruption occurs during the transfer of configuration to the device :

• Identify and correct the cause of interruption.
• Repeat the transfer.

Failure to follow these instructions will result in death or serious injury.

Multi-Loader display	Probable cause	Remedy
Alert: Low Battery Level	The battery charge is low. The appearance of this message depends on the charge level defined by the user. (See setting the detection page 24.)	- Make sure you have a set of replacement batteries to hand, as the current set have little life left. - Remains not enough time of use.
Switch off Low battery	The battery charge is too low. The Multi-Loader will turn off.	- Replace the batteries immediately. No more transfers can be made.
Store config fault	Incomplete or incorrect transfer to the device	- Check the RJ45 cable and both of its connectors. Make sure the connection is secure for the duration of the transfer. Restart the transfer operation.
Wrong reference Fault	Bad transfer to the device; the configuration file selected is not compatible with the destination device.	- Check that the configuration file is compatible with the device to be configured.

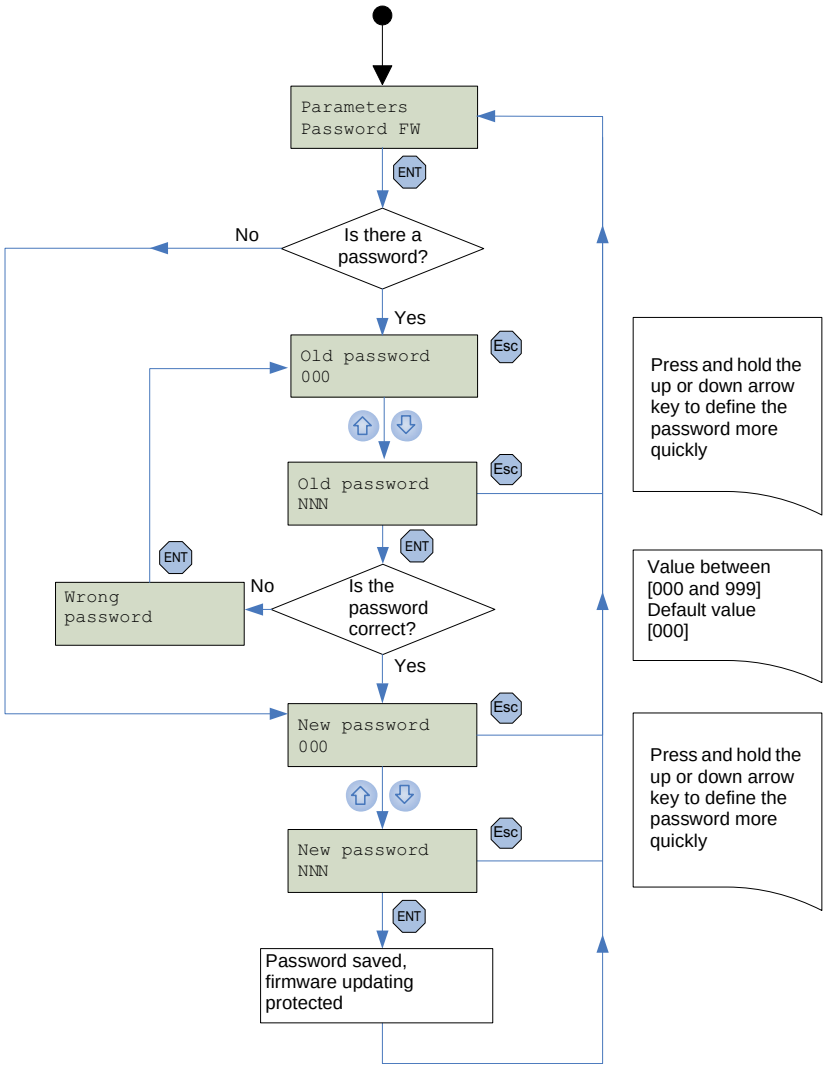
Parameter settings: Diagnostics

Multi-Loader display	Probable cause	Remedy
Load config fault	Incomplete or incorrect transfer from the Multi-Loader to the device	- Check the RJ45 cable and both of its connectors. Restart the transfer operation.
Flash FW Fault	Incomplete or incorrect device update	- Check the RJ45 cable and both of its connectors. Make sure the connection is secure for the duration of the transfer. Restart the transfer operation.
No device connected	The device is not connected or is incorrectly connected.	- Check the RJ45 cable and both of its connectors. Make sure the connection is secure for the duration of the transfer. Connect the RJ45 cable.
No file selected	No configuration file is selected. There is no file present on the SD card.	- Select a file to transfer. - Follow the procedure for loading configuration files described on page 16.
Wrong password	The password is incorrect.	- Enter the password correctly (the default password is [000]).
SD card fault	The card is not recognized.	- Check that the SD card is inserted correctly. - Check that the SD card is formatted correctly.
FLSH MSD Error	Incomplete or incorrect Multi-Loader update	- Check that the SD card is inserted correctly. - Check the version files for updating Multi-Loader. See page 31

Parameter settings: Password

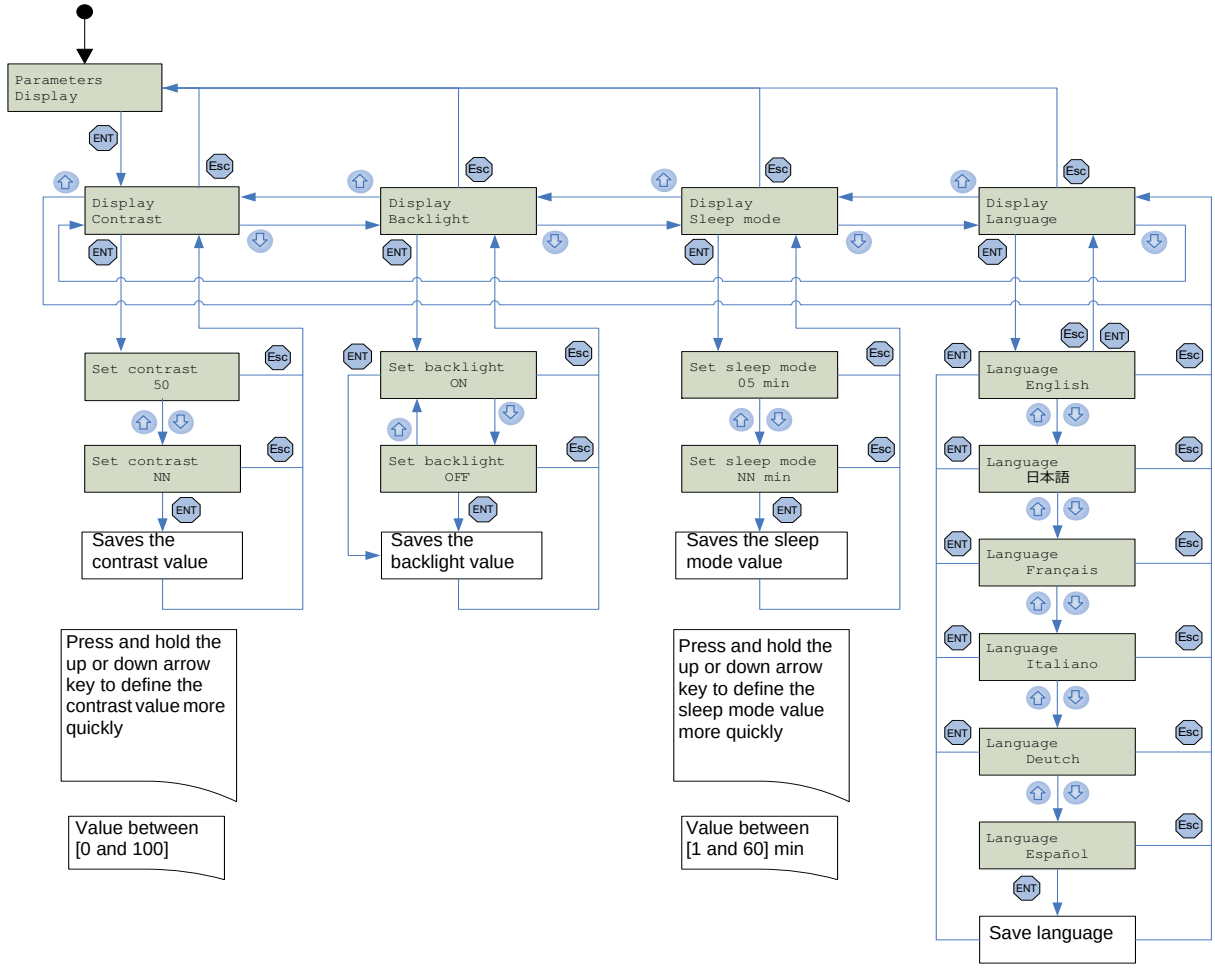
Parameters / Password FW

The diagram below shows the **Parameters / Password FW** menu accessible from **Main menu / Parameters**.
Parameters / Password FW: This code helps protect the device from accidental firmware updating.



Parameter settings: Display

The diagram below shows the **Parameters / Display** menu accessible from **Main menu / Parameters**.
Display / Contrast: This menu is used to set the display screen contrast.
Display / Backlight: This menu is used to set the display screen backlight.
Display / Sleep mode: This menu is used to set the Multi-Loader's sleep mode.
Display / Language: This menu accesses the language selection for the Multi-Loader interface.



Updating device application

Compatibility

⚠ DANGER

UNINTENDED EQUIPMENT OPERATION

- Read and understand this manual before installing or operating the Multi-Loader.
- Any changes made to a device using the Multi-Loader must be performed by qualified personnel.
- Before you load a new product firmware, read and understand the procedure "transferring the device update file" describes page 30.
- Ensure that you select the Firmware suitable for your application

Failure to follow these instructions will result in death or serious injury.

The Multi-Loader can be used to update a device's firmware (**"*.fw"**) file via the RJ45 cable provided in the box.

The table below shows the devices that are compatible with the Multi-Loader. It shows which type of file can be transferred depending on the state of the device.

Device	Power off
Graphic terminal (VW3A1101)	●
ATV303	●
ATV12	●
ATV32	●
Lexium 32	●
Lexium 32S	●

● Device compatible with the Multi-Loader tool

Note 1: The update file must be compatible with the device. Any incompatibility will prompt a message "**Wrong reference Fault**" and the transfer operation will not be done. (See table on page 25.)

Note 2: When updating device firmware, you must ensure that all downloaded files are copied to the Multi-Loader's SD card (**"*.fw"** file and executable file).

Note 3: Ensure that you update the product device label and the keypad label after updating device application.

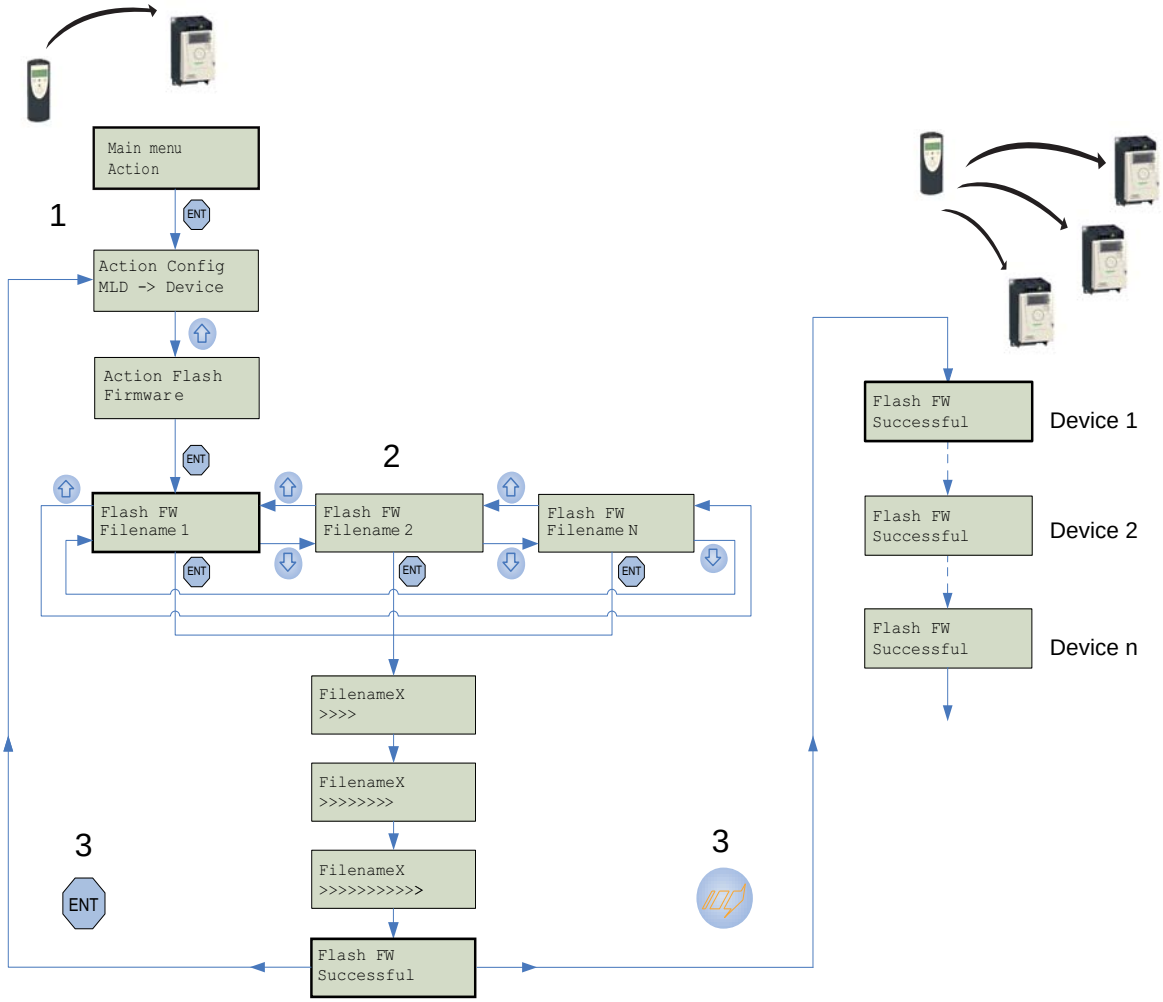
Transferring the device update file

This procedure describes how to select the device update file. The user can then use Quick Store mode for the rest of the operation (see page 22). The user must already have:

- Downloaded the update file from www.schneider-electric.com (see page 31)

AND

- Transferred the file to the Multi-Loader (see page 13, Connection to a PC)



STEP	Transfer	Quick Store
1	• Turn the Multi-Loader on using the ON/OFF button "**F**" (see page 11). • Connect the Multi-Loader to the device using the RJ45 cable (see page 14). • Press "ENT" when the screen displays **Main menu / Action**. • Select the **Action Flash / Firmware** menu using the arrow keys and press "ENT".	
2	• Select the file to be transferred using the arrow keys and press "ENT" to start the transfer. If no device is connected, a message (**No device connected**) appears on the screen (see page 25).	
3	• The firmware update file has been loaded successfully onto the device; disconnect the RJ45 cable from the device. • Pressing "ENT" returns the user to the "Action Config" menu if no other devices require updating.	• Connect the Multi-Loader to the next device, then press the Quick Store key. • **Flash FW Successful**: The firmware update file has been loaded successfully onto the device; disconnect the RJ45 cable from the device. • This action can be carried out as many times as necessary.

Updating the Multi-Loader tool

There are two methods for updating the Multi-Loader:

- The user connects the Multi-Loader to the PC (with the SD card in the Multi-Loader) and transfer the file for updated application device to the card SD. The Multi-Loader is then updated as soon as it is turned on.

Or

- The user copies the update file to the SD card, (with the SD card in the PC) then inserts the SD card into the Multi-Loader; the Multi-Loader is then updated as soon as it is turned on.

To download the files required for updating the Multi-Loader tool, see "Downloads" on page 32.

OLD format ⩽ V3.08
To upgrade Firmware for Multi-Loader from versions between V1.10 and V3.08, following six files need to be copied to SD card.

- MLDAPP.FW
- APPADDR.BIN
- APPDATA.BIN
- MLDMSD.FW
- MSDADDR.BIN
- MSDDATA.BIN

New format ⩾ V3.08
To upgrade Firmware for Multi-Loader from versions V3.08, following two files need to be copied to SD card.

- MLDAPP.mld
- MLDMSD.mld

Update procedure

Step	USB/PC	Step	SD card/PC
	Actions		Actions
1	• Check that the SD card is inserted correctly in the Multi-Loader. • Turn the Multi-Loader on using button "**F**" (see page 11).	1	• Insert the SD card in the SD card reader on the PC (see page 13). The SD card is recognized as an external storage device.
2	• Connect the Mini-B connector to the Multi-Loader and the type A connector to the PC (see page 13). The Multi-Loader is recognized as an external storage device.	2	• Drag and drop the unzip files into the root directory on the SD card by the PC Wait until the files have loaded.
3	• Drag and drop the unzip files into the root directory on the SD card by the PC Wait until the files have loaded.	3	• Once the files have loaded successfully, remove the SD card from the PC.
4	Once the files have loaded successfully, remove the USB cable from the PC and the Multi-Loader.	4	• Insert the SD card in the Multi-Loader.
5	• Turn the Multi-Loader **off** using button "**F**" (see page 11). • Turn the Multi-Loader **on** using button "**F**" (see page 11).	5	• Turn the Multi-Loader on using button "**F**" (see page 11).
6	The Multi-Loader launches the update automatically.	6	The Multi-Loader launches the update automatically.

Downloads

SoMove software

SoMove allows you to prepare the configurations to be loaded onto a device. It is freeware available for downloading from www.schneider-electric.com.

Device update file

Contact your local Schneider Electric Customer Support Center for all device firmware updates.

Multi-Loader updated file

To request Multi-Loader update files, contact your local Schneider Electric Customer Support Center or download it directly from the Schneider Electric website www.schneider-electric.com.

Lists of faults codes

⚠ DANGER

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Codes	Display on the Multi-Loader
General	
Flash FW FAULT - 0x01	Wrong memory write detected
Flash FW FAULT - 0x02	Wrong check at the end of the upgrade detected
Flash FW FAULT - 0x11	Interruption connection detected or wrong file
Flash FW FAULT - 0x12	Missing file on the SD card Path too long
Flash FW FAULT - 0x13	File in a wrong format (Drives)
Flash FW FAULT - 0x14	File in a wrong format (Graphic keypad)

Codes	Display on the Multi-Loader
Specific application FW	
Flash FW FAULT - 0x21 - 0x31	Wrong communication detected
Flash FW FAULT - 0x22 - 0x32	Wrong reference detected
Flash FW FAULT - 0x23 - 0x33	Wrong communication detected (baud rate)
Flash FW FAULT - 0x24 - 0x34	Wrong program erase detected
Flash FW FAULT - 0x25 - 0x35	Wrong program download detected

Specific graphic keypad	
Flash FW FAULT - 0x9a	Wrong file detected
Flash FW FAULT - 0x9b	Fonts file download failed
Flash FW FAULT - 0x9c	Labels file download failed
Flash FW FAULT - 0x9d	Bitmaps file download failed
Flash FW FAULT - 0x91	Internal Error
Flash FW FAULT - 0x92	Wrong file detected
Flash FW FAULT - 0x93	Internal Error2 (Unable to open the file)
Flash FW FAULT - 0x94	Wrong communication detected
Flash FW FAULT - 0x95	Syntax error of the configuration file
Flash FW FAULT - 0x96	Wrong file detected
Flash FW FAULT - 0x97	Wrong file detected
Flash FW FAULT - 0x98	Wrong configuration format file detected
Flash FW FAULT - 0x99	No keypad connected Wrong update labels of keypad detected

Specific motor control FW	
Flash FW FAULT - 0x4a	Wrong download detected
Flash FW FAULT - 0x40	Flashing Motor Control is not allowed when the drive is Power On
Flash FW FAULT - 0x41	Wrong communication detected
Flash FW FAULT - 0x42	Inquiry device failed
Flash FW FAULT - 0x43	Selection device failed
Flash FW FAULT - 0x44	Inquiry of clock modes failed
Flash FW FAULT - 0x45	Selection of clock modes failed
Flash FW FAULT - 0x46	Inquiry of write line size failed
Flash FW FAULT - 0x47	Wrong communication detected (baud rate)
Flash FW FAULT - 0x48	End setting data failed
Flash FW FAULT - 0x49	Wrong memory write detected

⚠ DANGER

UNINTENDED EQUIPMENT OPERATION DUE TO TRANSFER INTERRUPTION
If an interruption occurs during the transfer of configuration to the device :

• Identify and correct the cause of interruption.
• Repeat the transfer.

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Codes	Display on the Multi-Loader
Specific Lexium 32	
Flash FW FAULT - 0x81	Wrong compatilibity detected
Flash FW FAULT - 0x82	Product not available for upgrade
Flash FW FAULT - 0x83	Wrong Flash mode set
Flash FW FAULT - 0x84	Wrong downloader upgrade application
Flash FW FAULT - 0x85	Wrong program erase detected
Flash FW FAULT - 0x86	Wrong program download detected
Flash FW FAULT - 0x87	Wrong exit update detected
Flash FW FAULT - 0x88	Wrong exit verification detected

Notes